Stakeholder Comments Template

Subject: Convergence Bidding

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<th>Submitted by (name and phone number):</th>
<th>Company or Entity:</th>
<th>Date Submitted:</th>
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<td>November 30, 2007</td>
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As a follow-up to the discussion at the November 14 stakeholder meeting, the CAISO is requesting additional written comments on convergence bidding.

This template is offered as an easy guide for entities to submit comments; however, any participant should feel free to submit comments in any format. Submitted comments will remain posted and part of the record for this stakeholder process, unless participants expressly ask that their comments not be posted.

All documents related to this convergence bidding stakeholder process are posted at: [http://www.caiso.com/1807/1807996f7020.html](http://www.caiso.com/1807/1807996f7020.html)

**Stakeholder comments should be submitted by close of business on Friday, November 30, 2007 to: convergencebidding@caiso.com.**

The CAISO offers the following topics as a structure for stakeholder comments:

**Background:**
SCE appreciates the opportunity to provide the CAISO with comments related to Convergence/Virtual Bidding. SCE has provided the CAISO with detailed comments related to Virtual Bidding on July 28, 2006, November 15, 2006, a presentation on August 10, 2007 and additional comments on August 24, 2007.
1. Does your entity have suggestions or comments on the process by which the CAISO will resolve the nodal versus zonal granularity issue?

SCE supports the initial implementation of LAP level bidding. In addition to the three primary LAPs, FERC has ordered the CAISO to implement additional LAPs as part of Release 2. Thus, there is a natural transition for Virtual Bidding: Begin with the original LAPs, expand VB as the LAPs expand, and then, based on this expanded set of LAPs, revisit the issue to see if there is a demand/need to move to a more granular level after the additional LAPs have been in place for some time (e.g. 1 year).

In any event, prior to moving nodes the CAISO must carefully evaluate the ability of their RUC process to address infeasible schedules and to target specific, needed generation that was not selected in the IFM. In addition, the CAISO must demonstrate that any level of virtual bidding will not undermine their local market power mitigation. The CAISO’s DMM has observed that Virtual Bidding has the potential to significantly undermine the current local market power mitigation and that, with the introduction of virtual bidding, changes will be necessary to preserve the current design of our local market power mitigation. SCE agrees with the DMM and the CAISO should make it clear to stakeholders that any implementation of virtual bidding will ensure that the current market power mitigation will not be undermined in any manner.

2. What are your entity’s views on the proposed characteristics of virtual bids (that were reviewed at the November 14th meeting)?

SCE supports the following proposed characteristics for Virtual Bids: Bids explicitly flagged; Submitted only in DAM; Energy Bids only; No start-up or minimum energy costs; use of the same distribution factors applied to physical bids in DA and RT market; same bid caps as physical bids.

Per the CAISO’s proposal SCE agrees that Virtual Bids should not be allowed at the interties. In addition to gaming concerns, such bids can result in the award of physical bids which in turn may not be physically feasible. For example, a Virtual Demand Bid at an inter-tie may create a counter-flow that allows additional physical imports to clear the IFM. Since Virtual Awards are not scheduled, once the Virtual transactions are removed, neighboring control areas will not be able to schedule the imports that cleared in the IFM. In addition to creating infeasible flows, such bids will force both the CAISO and the neighboring control area to cut physical schedules. This result is unacceptable.

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1 For example, assume an inter-tie has an import capability of 200MW. If a Virtual Load bid of 50MW clears at the inter-time, the optimization will now calculate that a total of 250MW (200MW of line capacity plus the 50MW counter flow) can be imported over the line. If the IFM then clears 250MW of physical imports, the line will be overloaded. However, this will not be discovered until the physical winners attempt to schedule the power between the CAISO and neighboring control areas. At this time, both the CAISO and the neighboring control area will be forced to arbitrarily cut the schedules back to 200MW.
Further, SCE objects to the submission of Virtual Bids at the EZ Gen Hubs. In MRTU, the EZ Gen Hubs are a financial calculation performed after the market clears. In contrast, LAP level bids clear as part of the optimization. Thus, rather than fundamentally changing the role and definition of EZ Gen Hubs simply to accommodate Virtual Bids, party should simply submit Virtual Bids at the LAPs.

SCE also questions the need for Virtual Bids to have “up to ten segments”. The potential addition of thousands of additional Virtual Bids, each with up to ten segments, may create timing issues with the software, especially if the CAISO implements nodal VB. The CAISO should make sure the software can function with this level of complexity prior to committing to “ten segment” bid curves.

3. What are your entity’s views on proposed changes to the Day Ahead market which are needed to facilitate convergence bidding?

MRTU was designed to address several key design flaws in the original market. This included eliminating infeasible schedules, and mitigating local market power. As a result, the CAISO must make changes to the Day Ahead market to ensure Virtual Bidding does not undermine these key objectives. SCE believes that LAP level bidding is the best way to ensure the MRTU design is not undermined.

Concerning physical feasibility, CAISO must refine its RUC process so that it can efficiently address any infeasibility created by Virtual Bids. SCE would like the CAISO to provide additional detail on how RUC currently performs (i.e how efficient and how costly is it,…) when RUC is presented with various scenarios which contain infeasible IFM solutions.

Concerning local market power mitigation, the CAISO’s Department of Market Monitoring has conclusively demonstrated that Virtual Bids can undermine MRTU’s current mitigation local market power mitigation, especially Virtual Supply bids submitted at a nodal level\(^2\). SCE objects to any formulation of Virtual Bidding that undermines the operation of MRTU’s local market power mitigation and believes that Virtual Supply should not be include in the mitigation runs.

SCE also supports the CAISO’s proposal to immediately release, on a nodal basis, the amount of Virtual Bids that clear the IFM. Per the CAISO’s proposal, the full details of the bids (in a coded form) would be released consistent with physical bids. SCE understands this would be released on an SC basis and both the physical and Virtual bids from a certain SC would have the same code.

SCE does not support the initial implementation of Virtual Bidding at nodes as mentioned above. However, if nodal bidding is adopted, additional market mitigation

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\(^2\) See the DMM’s November 2007 paper posted at [http://www.caiso.com/1c8f/1c8ff5f46e90.pdf](http://www.caiso.com/1c8f/1c8ff5f46e90.pdf) as well as Appendix A posted at [http://www.caiso.com/1c8f/1c8ff4236e8e0.pdf](http://www.caiso.com/1c8f/1c8ff4236e8e0.pdf)
measures, including position limits, will be necessary. Even with position limits, the CAISO will require additional tools to comprehensively and effectively monitor virtual participation at all of 3000 plus nodes in the grid. This is a non-trivial task and nodal virtual bidding should not be implemented until the CAISO has such monitoring capabilities.

4. What are your entity’s views on the proposed credit policy and processes for virtual bids?

SCE would like more details on how 95th percentile price differentials would work.

5. What are your entity’s views on the CAISO’s proposal (explained at the November 14th meeting) for allocating costs for virtual transactions?

SCE strongly disagrees with the CAISO’s proposal for uplifts presented at the November 14th meeting. First, the CAISO must address real-time uplifts and allocate appropriate uplifts to virtual bids. The CAISO inappropriately dismissed this issue when they reformulated the clearing price calculation for the real-time market. This is a significant issue and the CAISO has not demonstrated that exempting Virtual Bids from real-time uplifts is in any way consistent with a proper design, and SCE believes Real-time uplifts must be implemented as part of a proper market design.

Second, based on SCE’s understanding of FERC rulings in MISO, the concept of “netting” supply and demand virtual bids has already been rejected by FERC and should likewise be abandoned by the CAISO. In addition to FERC precedent, this proposal should be rejected because the only apparent principle driving this methodology is to “not over allocate[e] costs in order to encourage participation in the virtual market.” The CAISO should not have as a goal or objective, minimizing uplift costs to virtual bids. Rather, all participants in the market, virtual or physical should be allocated a like amount of uplift.

As SCE has explained in previous comments, everything in the optimization, both physical and virtual, contributes to uplift costs. Thus, all bids, both physical and virtual should share a like amount of uplifts. This includes both day-ahead and real-time uplifts. Because the optimization clears based on all bids – both physical and virtual - attempts to associate uplifts to only one class of participants (physical or virtual) will turn out to be arbitrary, and potentially capricious. Moreover, attempts to provide a “counter factual” market base on “what would have the uplifts been if the CAISO cleared its forecast in the IFM” are similarly arbitrary and are disconnected from actual market results. That is, by design MRTU allows buyers to purchase energy outside of the IFM and thus any counterfactual of “clearing 100% of the forecast” is likewise arbitrary.
SCE provided detail comments on how to allocate uplifts properly in its 7/28/06 comments. Those comments are repeated here for clarity.

The CAISO has since changed its settlement for real-time markets so there is now a single clearing price, and a potential uplift because of difference between day-ahead and real-time LDFs. Since nodal Virtual Bids in effect change the day-ahead LDFs, Virtual bids should also be subject to real-time uplifts related to LDF changes between the day-ahead and real-time markets.

Finally, SCE notes that improperly allocating uplift to virtual transaction can create result in market distortions in which Virtual bids increase total costs to the market and, because of improper up-lift allocation, unjustly shift uplift costs to physical load. Put more succinctly, the CAISO must not allow virtual bidders to cost-shift uplifts to physical load – physical load should not subsidize virtual bids. To do so will increase market costs only to physical load, and provide unjust enrichment to virtual bidders.

In sum, everything in the market, both physical and virtual, contributes to uplift charges – the CAISO cannot unscramble the egg and allocate the yolk to virtual load and the white to physical. Any attempt to do so is arbitrary. As a result, all market participants, both physical and virtual should share in like amounts of uplifts.

6. What are your entity's views on the potential interaction of nodal convergence bidding and Inter-SC Trades?
Nodal bidding has the potential to undermine the CAISO entire structure for Physical SC trades. This becomes crucial as it relates to the State’s Seller’s Choice contracts, but the problem is much larger than this. For example, if Unit X wants to do a physical trade at its bus, it can only do this to the degree it first clears the IFM. Nodal Virtual Bids could reduce the clearing quantity of Unit X, or even prevent the Unit X from being committed at all by the IFM.

If nodal Virtual bidding is allowed, the CAISO should consider position limits, especially as it relates to parties of seller’s choice contracts, and as noted above, must have tools to closely monitor the Virtual Bidding of parties associated with the State’s Seller’s Choice contracts.